

CONCUSSION PREVENTION CLINIC

Return To Play Guidelines

Stepwise Symptom Limited Approach
with stages of progression

Physical/Mental Rest until asymptomatic

Light aerobic exercise

Sport-specific exercise

Non-contact training drills

Full-contact after medical clearance

Return to Competition

There should be 24 hours or longer
for each stage and athlete should
return to stage 1 if symptoms recur.

* Summary and Agreement Statement of the Second International
Symposium on Concussion in Sport, Prague 2004 58

PREVENTION STRATEGIES

TWO KEYS:

Preparation & Protection

1. PREPARATION:

Teach Players How To Get Low
and Stay Low On and Off The Ice

- > core stability
- > single leg strength & stability

2. PROTECTION:

Emphasize "heads up" hockey

- > know that contact is coming
- > know how to initiate contact

Strength & Stability Training

Single Leg Stability:

If we expect this on the
ice, must teach off the ice

- > Knee to calf
 - > Butt out & chest out
- Start at 30 seconds per leg
& work up to 1 min+ per leg

Add: Eyes closed, partner pushes



Single Leg Strength:

Squat to bench/chair

- > Push up through heel
 - > Squeeze butt at top
- Start at 5 repetitions per
leg & work up to 10+.

Add: Lower bench/chair, eyes closed



Core Stability:

Front Plank

- > Straight line
 - > Squeeze abs, butt,
legs and shoulders
- Start at 30 seconds and
work up to 1-2 minutes.

Add: Leg hold or arm hold



Side Plank

- > Straight line
 - > Squeeze abs, butt,
legs and shoulders
- Start at 30 seconds and
work up to 1-2 minutes.

Add: Leg lift or leg hold



Total Female Hockey

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SCARY STATS...

- ★ Girls hockey players **2x** more likely to sustain concussion than boys hockey & **3x** more likely than football players.
- ★ **1 concussion per 1000 exposures.**
- ★ On a team of 20, 1 concussion for every 50 practices or games.
- ★ **2 concussions per season per team!**
- ★ Most are either **never diagnosed or inappropriately treated.**

WHO is getting hurt?

- Not just "elite" older players
- Happening at all ages and levels

WHAT is a concussion?

- Concussion doesn't mean unconscious
- Change in mental status caused by trauma
- Happens when head hits or is hit by an object or when brain is jarred against skull with enough force to cause temporary loss of function in higher centers of brain (Ca+ and BF)

WHEN are girls getting hurt?

- Battling & racing for the puck
- Accidental & incidental contact

WHERE does it happen on the ice?

- Along the boards & in front of the net

WHY is this happening?

- Rules? Give a hit vs. Take a hit
- Equipment? Mouthguards & helmets
- The way they play? Heads up
- Weaknesses? Stability & Strength

SIGNS & SYMPTOMS OF CONCUSSIONS

Signs Observed By Coaches

- Appears dazed or stunned
- Confusion & Forgetful
- Inability to recall events before hit
- Inability to recall events after hit
- Moves clumsily
- Unsure of game, score, opponent
- Answers questions slowly
- Behavioral & personality changes
- Loss of consciousness

Symptoms Felt By Players

- Headache
- Dizziness
- Nausea/vomiting
- Double or blurred vision
- Light and/or noise sensitivity
- Feeling sluggish
- Foggy or drowsy
- Concentration and/or memory problems
- Confusion
- Seeing stars
- Sadness
- Sleep disturbances
- Centre for Disease Control

WHY PLAYERS DON'T REPORT?

Don't want to be out of game?

- 2/3 of athletes don't report because don't think it is serious enough!
- 1/3 don't report because don't know what a concussion is!

Why this is dangerous?

- > Second impact
- > Cumulative effect
- > Chronic Traumatic Encephalopathy

McCrea M et al. Unreported concussion in high school football players: implications for prevention. Clin J Sport Med. 2004 Jan;14(1): 13-7